

4/27/88

C4725-3

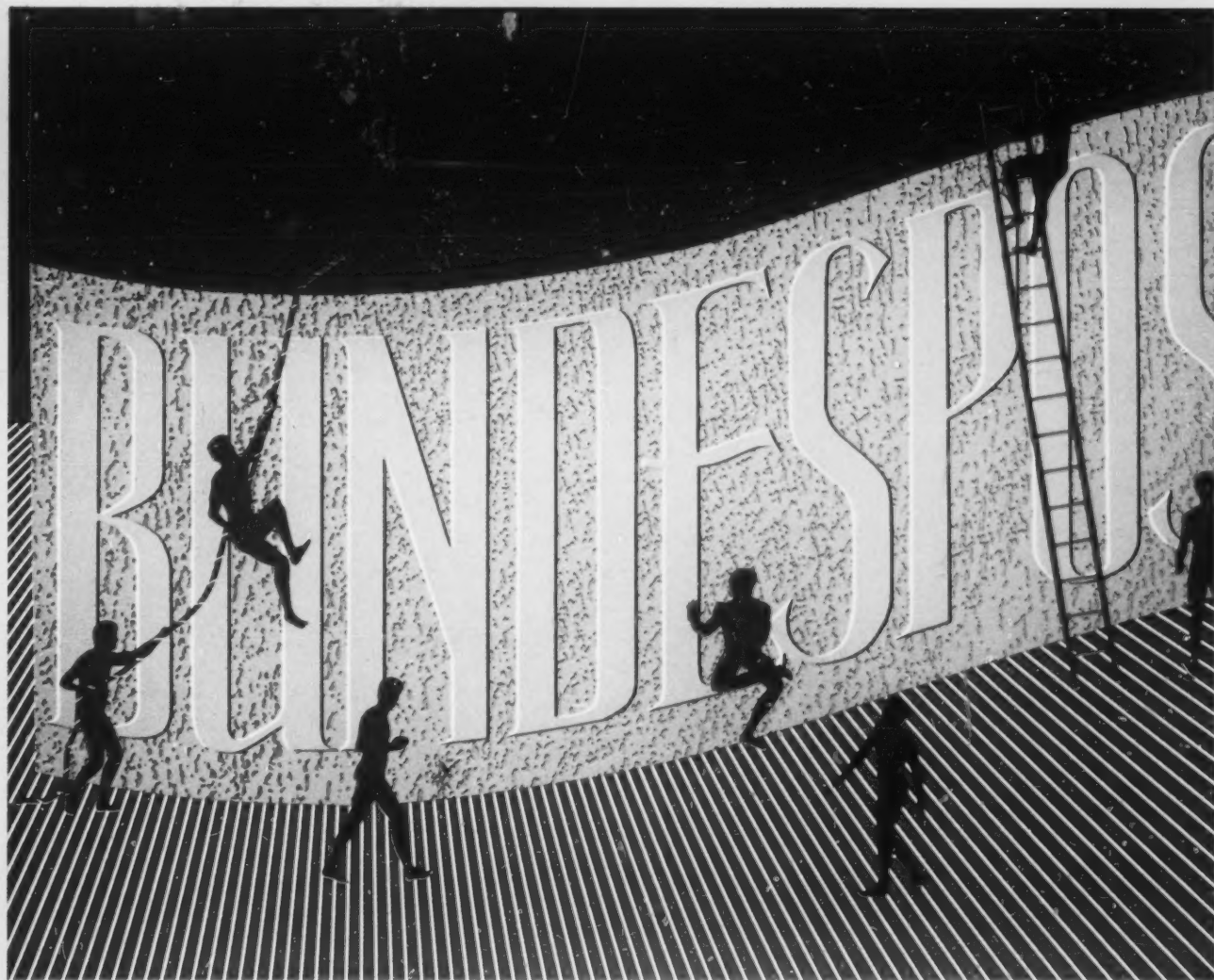
AN INTERTEC PUBLICATION

MONDAY, APRIL 25, 1988

Telephony

INTEGRATING VOICE AND DATA COMMUNICATIONS

\$3



SLIPPING THROUGH THE CRACKS The monopoly wall will still be intact in Germany when liberalization knocks in May

ONA PLANS UNDER HEAVY FIRE

FCC urged to reject RHCs' strategy

AT&T MOURNS OLSON, ELEVATES ALLEN

New chairman vows to implement Olson's plans

TEL001166958
J KENNEDY SR1
CONGRESSIONAL INFORMATION SERV
SITE 800
4520 EASTWEST HIGHWAY
BETHESDA MD
20814

Telephony

INTEGRATING VOICE AND DATA COMMUNICATIONS



Liberalization is coming to West Germany, but the monopoly walls clearly have not fallen down. Cover design by Michael Sonnenfeldt; art by AGS&R.

DEPARTMENTS

62 ADVERTISERS' INDEX

6 IN MY OPINION

25 MEETINGS

41 MERITS AND MILESTONES

64 MOVING AROUND INDUSTRY

42 NEW PRODUCTS AND SERVICES

NEWS OF THE WEEK

10 ONA PLANS COME UNDER HEAVY FIRE

Information service providers and users urge the FCC to set aside the current Bell company plans for ONA and devise a plan with more uniformity and better pricing

10 QUIGLEY SEES BLUE SKIES FOR INTELLIGENT NET

Pacific Bell leader opens Texpo '88 with optimistic forecast for burgeoning public network technology

11 AT&T MOURNS OLSON, ELEVATES ALLEN

New chairman vows to implement Olson's strategy in leading AT&T into a competitive future

12 GTE TAKES FIRST STEPS IN CONSOLIDATION

Seven local telco operations merged into four regional units as GTE trims cumbersome management structure

20 IRMER CALLS ISDN 'BUYERS' MARKET'

CCITT leader urges U.S. carriers to woo users with favorable pricing schemes

FEATURES

26 TELEX, TELETEX AND FAX SHARE PIECE OF PIE

By John Williamson. Just when it looked like teletex would take over the market, telex and facsimile have surged in popularity to grab their share of the pie

28 SLIPPING THROUGH THE CRACKS

By Peter Purton. As liberalization makes its way to West Germany next month, those who think the walls have fallen completely away will find only a few cracks in the structure

34 TECHNICAL UMBRELLAS FOR THE INFO AGE

By Ian M. Lifchus. Standards organizations worldwide have responded to a constantly shifting but interwoven global telecom system. The U.S. T-1 Committee has been on the cutting edge

38 INTERFACE: A SMOLDERING ONA CONTROVERSY

By Ellis Booker and Deborah Pfeiffer. Interface '88 came to the Windy City last month, bringing with it a host of unanswered questions about Open Network Architecture

TELEPHONY (ISSN 0040-2658) is published weekly by Telephony Division, Intertec Publishing. Postmaster: Please send address changes to Subscription Dept., TELEPHONY, 56 E. Jackson Blvd., Chicago, IL 60604-4188. Second class postage paid at Chicago, IL, and at additional mailing offices. Single copies (payable in advance) U.S. \$3.00 ea. Outside U.S. add \$1.00 ea. Subscriptions: \$35 one year. Outside U.S. \$61 per year. Subscription rates apply to employees of operating telephone companies, telephone consultants, contractors, interconnect companies, specialized common carriers, military, government, associations, private communications users, schools, libraries. Change of address: include old address as well as new address. Attach label if possible. Allow 4 weeks for change to become effective. Copyright 1988 by Telephony Division, Intertec Publishing. All rights reserved. Permission to photocopy for internal or personal use or the internal or personal use of specific clients is granted by Telephony for libraries and other users registered with the Copyright Clearance Center (CCC) provided that the fee of \$1.50 per page is paid directly to CCC, 21 Congress St., Salem, MA 01970. Special requests should be addressed to publisher.

Text transmission in Europe: Telex, teletex and facsimile all share a piece of the pie

JOHN WILLIAMSON, International Editor

Five years ago, the future of text communication in Europe seemed clear.

Teletex would, it was thought, make major gains at the expense of telex, and facsimile, "the sleeping giant of telecommunications," would increasingly join hands with the telex replacement in a new words-and-graphics medium.

Today, though the sleeping giant has certainly awoken, it's usual to find facsimile married to the personal computer in multi-function set-ups—although companies such as Siemens appear to think that teletex, facsimile and voice are viable in the integrated services digital network, or ISDN, environment. Meanwhile, telex refuses to lie down. For example, telex traffic grew by 7% in the U.K. last year. By contrast, in most locations, teletex refuses to get up.

At the same time, considerable progress has been made toward standardization of electronic mailbox systems. There has been a downward price trend in mobile text systems that, like electronic mailbox systems, emphasize message content rather than appearance.

The relative failure of teletex, or super-telex, is clearly illustrated by the gap between earlier projections of terminal populations and current numbers.

In West Germany, which can lay claim to being the "cradle" of the new service, the Bundespost calculated in 1982 that around 40,000 terminals would be in use nationally by 1987, rising to 130,000 by 1992. In fact, by the end of 1987, a mere 18,000 terminals were recorded, and no one is pre-

dicting with any degree of confidence a major uptake in the future.

Failure

Even so, Germany is probably the brightest spot on the horizon for the teletex community.

The U.K., which was supposed to boast a terminal base of 35,000 by 1986, almost certainly has less than Germany does now. No one can be absolutely sure about this since British Telecom is not the sole supplier of terminals, and traffic is carried over both the dial-up telephone network and the packet switched data network.

However, BT recently shut down its teletex gateways between the telephone and data networks, and between these and the telex network. A BT spokesman said that use of the gateways was insufficient to justify their retention.

A number of reasons have been advanced for this poor showing. On paper, teletex has substantial advantages over the telex service it was designed to replace. It is up to 30 times faster than telex. It uses upper and lower case letters. And, being software-based, it can accommodate different alphabets and have very sophisticated message preparation and processing capabilities.

Unfortunately, the extreme flexibility embodied in the teletex standard acted not to accelerate the introduction of the service but to engender uncertainty among terminal suppliers and would-be users. It was also realized that telex's 50 baud speed was not actually that much of a problem since average telex messages are

only 400 characters long. Furthermore, teletex's basic 2400 b/s speed is not particularly useful for bulk data exchange.

With low uptake, terminal prices remained at a premium and "black box" teletex add-ons for word processors and personal computers were slow in coming to the market. Critically, there was little interest in teletex in North America. In these circumstances, the medium went into something of a commercial limbo.

Success

While teletex languished, facsimile usage expanded at a remarkable rate (Figure 1). The British Facsimile Industry Consultative Committee, or BFICC, reports that 96,000 transceivers were in use in the U.K. last year. The BFICC calculates that a further 150,000 units will be added in 1988. In 1986 it was estimated that there were only 200,000 transceivers in the whole of Western Europe.

Facsimile scores over other forms of text transmission systems because it is able to communicate graphics, photographs, logos and signatures in addition to text in any script. Moreover, operation of a facsimile transceiver requires only basic manual dexterity instead of the keyboard skills required by other text systems.

These attributes make facsimile a potential candidate for the mass professional market in much the same way that photocopiers are at present. Indeed, many models also function as local photocopiers. In the past, high transmission costs and terminal prices confined fac-

simile to specialist and large user applications. Today, A4-sized documents are transmitted in under 20 seconds, and the price of a basic terminal has fallen to around the level of medium-range cellular telephones.

In late March, British Telecom brought its no-frills CF 9 desktop facsimile to market at just under the psychologically important £1000 (\$1800) price level.

Interestingly, BT has a more ambitious projection than the BFICC for facsimile growth, estimating that some 180,000 additional units will be shipped in the U.K. in 1988.

Although telex has demonstrated surprising resilience—due in part to the technology that allowed its physical relocation from special-purpose telex centers to individual users' desks—it is expected that in the medium term the service will lose ground to facsimile and X.400 electronic mail.

A recent study from the U.K.'s Logica consultancy estimates that although telex currently accounts for 70% of European electronic messaging connections, by 1993 it would fall to less than 25%.

The Logica study, entitled "Electronic Mail Product Markets," makes the point that, whereas telex and teletex have been primarily European-sponsored services with indigenous suppliers strong in their domestic markets, both facsimile and electronic mail are driven by technological and market developments outside Europe.

Logica believes that Japanese companies will continue to dominate the facsimile market and public electronic mail will be largely dictated by trends in the U.S. where the main system and service providers are based.

Bearing in mind the fate of teletex, it may be of some significance that the CCITT X.400 committee was one of the few dominated by U.S. companies.

Although the main thrust of the Logica argument seems incontestable, Europe is certainly not

standing still so far as X.400 electronic mail is concerned. The U.K. staked its claim to fame with BT's purchase of the former ITT Dialcom organization. Last year, it inaugurated a £5 million X.400 service. This will build on the foundations laid by such electronic mailbox systems as BT's Telecom Gold.

Elsewhere in the region, interest also has been strong. In October 1987, for example, the telecommunications administrations of Belgium, Norway and Sweden were involved in the formation of the Telemail International Licensee's Association, an organization designed to foster and promote international electronic mail and information exchange services based on X.400 standards.

Des Kilfeather, communications products manager of U.K. X.400 company Systems Designers, says, "Every PTT will be under pressure to install X.400 in the next five to 10 years."

On the Road

Mobile text communication is in its infancy in Europe. The radio frequency environment is less than ideal for the unambiguous transmission of character coded infor-

mation or binary data, and achieving an acceptable error level has usually meant relatively sophisticated and expensive modems.

Earlier this year the British company Commsolve International claimed to have reduced the cost of message terminals used on mobile radio networks by around two-thirds. It did this by combining a standard modem, an improved version of an as-yet-undisclosed U.S. computer communications software, and the miniature E-Note message terminal from Trend. Commsolve believes that over 10% of the U.K.'s current 1 million cellular and private mobile radio users are candidates for this type of 300 baud terminal.

The company hopes to get British Telecom and the two U.K. cellular operators to adopt the system as standard. Since it is transparent to the type of mobile radio system, Commsolve is talking to distributors in Europe and the Nordic countries, and is soon to announce nationwide distribution in the U.S. through an airtime retailer in Miami.

According to a Commsolve spokesman, "Within five years, most companies with mobile fleets will have this kind of system." ■

